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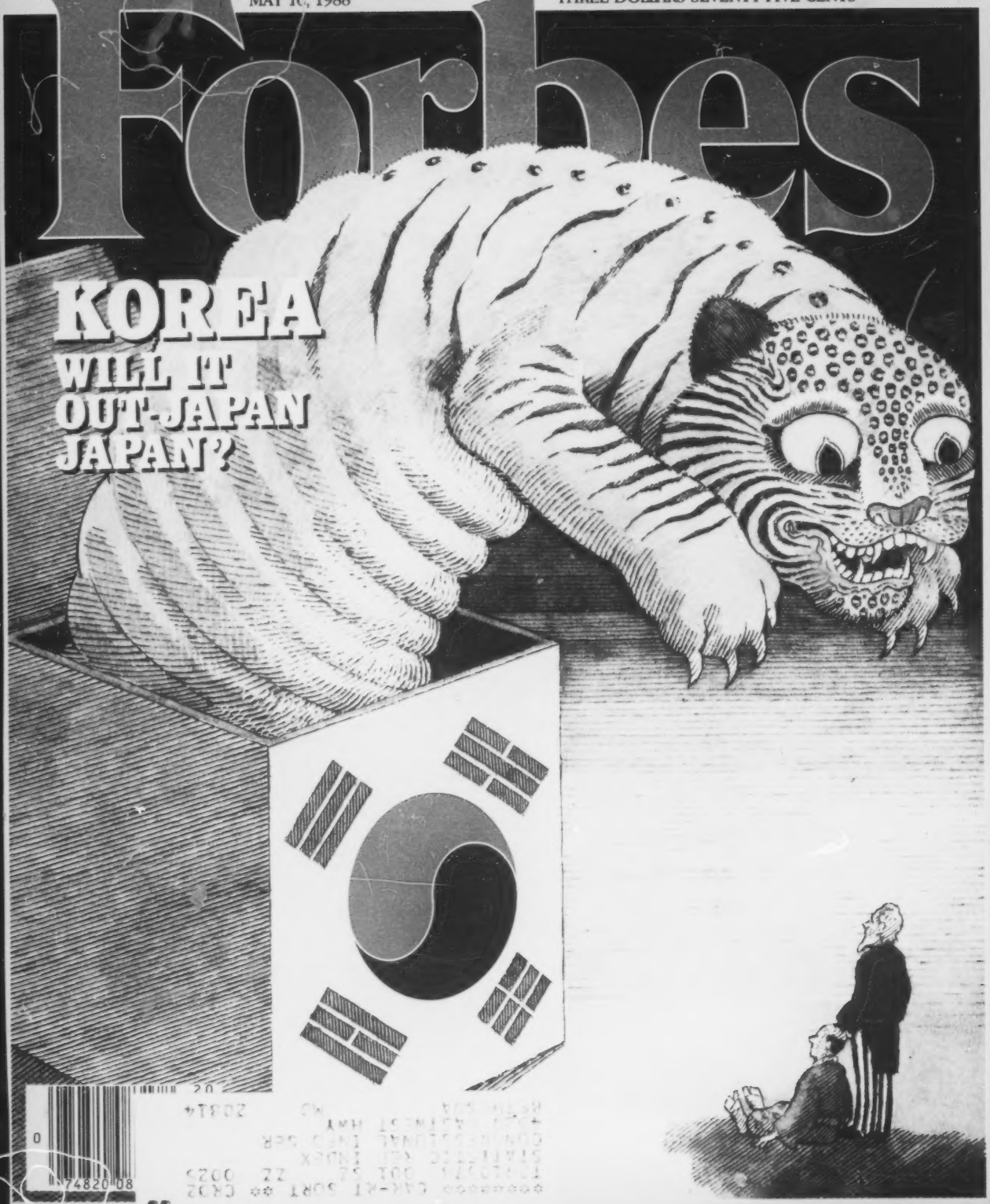
Forbes

KOREA WILL IT OUT-JAPAN JAPAN?



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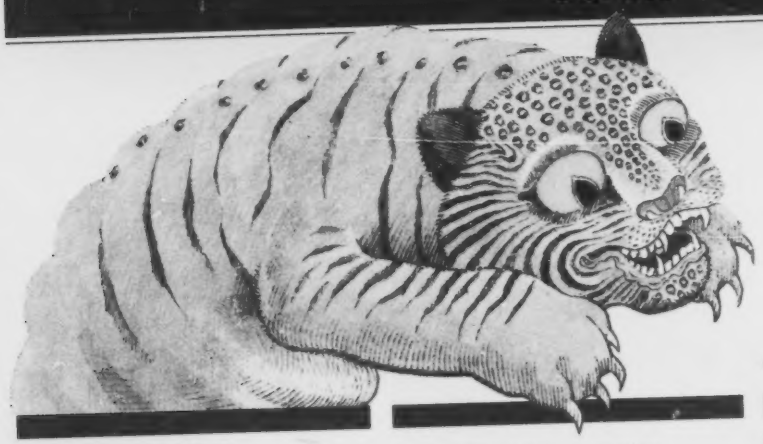

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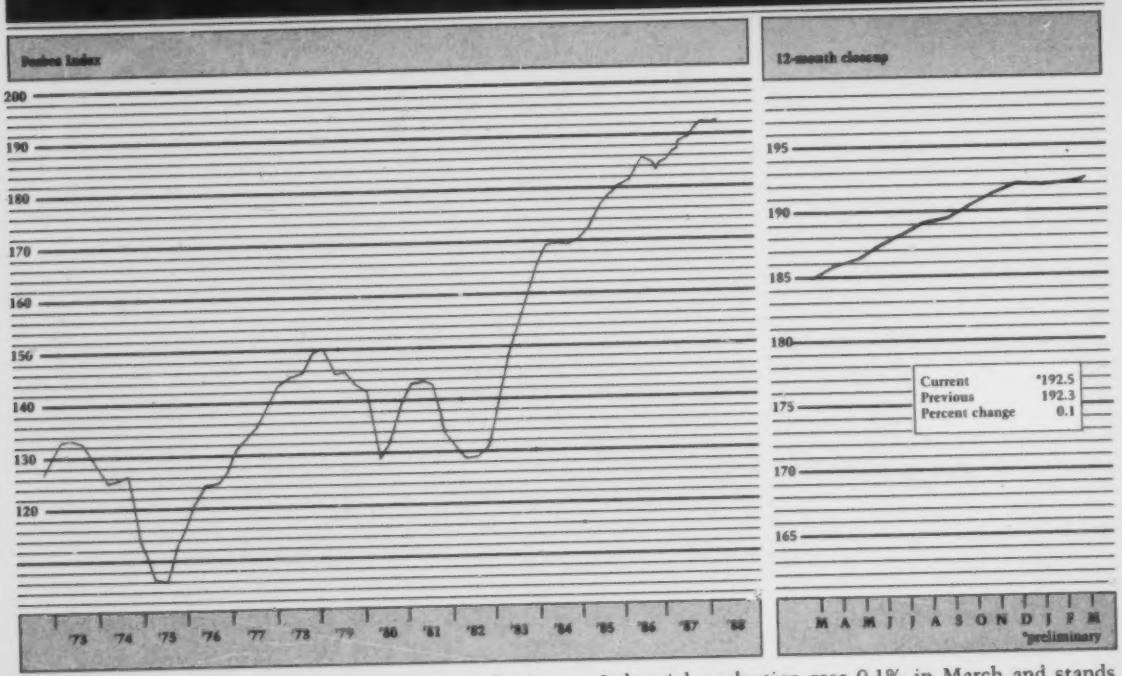
The Forbes Index



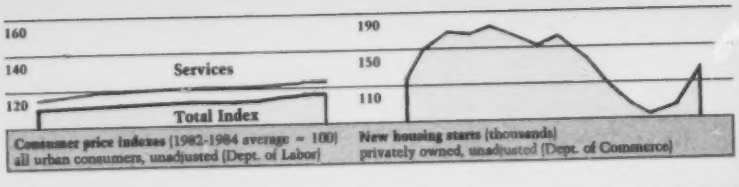
Inflation redux? In March the Consumer Price Index increased an unsettling 0.4%, the wholesale price index jumped 0.6%. One big reason for the upward move is the higher cost of apparel. American consumers buy a lot of imported clothing, and the weak dollar pushes up the cost of these goods. It also allows the domestic competition to charge more.

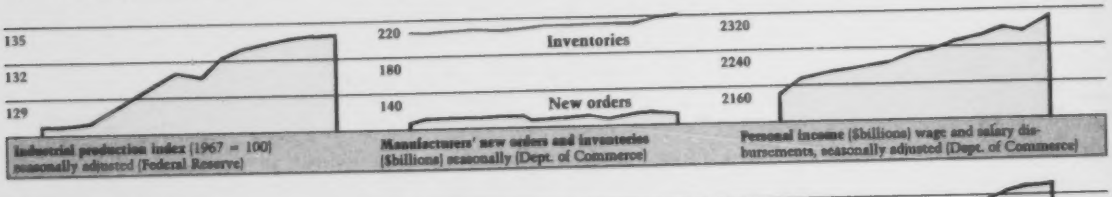
Industrial production rose 0.1% in March and stands 5.7% ahead of its level a year ago. The six-month total of new unemployment claims is 13.8% higher than it was in March 1987, but monthly unemployment filings have trended downward over the past two months. New housing starts, which shot up 46.2% in March, continue to show an erratic month-to-month pattern.

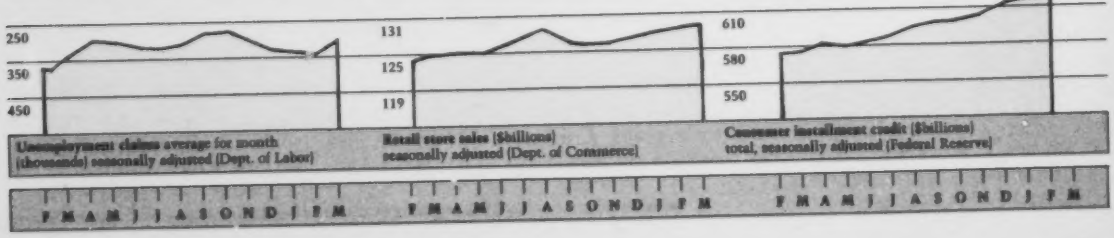
The Forbes Index Components

The Forbes Index is a measure of U.S. economic activity composed of eight equally weighted elements: Total industrial production, new claims for unemployment compensation, the cost of services relative to all consumer prices, the level of new orders for durable goods compared with manufacturers' inventories, total retail sales, new housing starts, personal income, total consumer installment credit.

To measure these eight elements, FORBES monitors ten series of U.S. government data. The last 14 months' data for each series are presented at right.






250
350
450
Unemployment claims average for month (thousands) seasonally adjusted (Dept. of Labor)
131
125
119
Retail store sales ($billions) seasonally adjusted (Dept. of Commerce)
610
580
550
Consumer installment credit ($billions) total, seasonally adjusted (Federal Reserve)
F M A M J J A S O N D J F M
F M A M J J A S O N D J F M
F M A M J J A S O N D J F M

Growing twice as fast as Japan, South Korea promises to become another major challenge to U.S. industrial recovery. Are our multinationals up to the challenge?

Samsung: South Korea marches to its own drummer

Billboard in New York's Times Square
In global advertising, too, Korea's manufacturers are learning from the Japanese.

By Andrew Tanzer

ANYONE WHO THINKS that all it takes is a cheaper dollar to bring back U.S. industrial exports had better read this story. What Japan has so powerfully accomplished other previously backward countries are now doing: becoming first-class industrial powers. Of these, South Korea is clearly the leader. Visit with us one of the giant businesses that spearhead the Korean economic push.

On an unseasonably warm March morning in South Korea, 13,000 workers flowed, a sea of blue and gray suits, into Seoul's cavernous Jamsil Gymnasium. The workers had been chosen from among Samsung Group's 150,000 employees to help commemorate the conglomerate's 50th anniversary. Neon signs flashed the names of the dozens of companies that combined last year to produce $24 billion in revenues. If Samsung were an American company, it would rank 15th on the Forbes 500 list—alongside such giants as Chrysler, K mart and Philip Morris. Giant banners exhorted the workers to serve the nation through business and proclaimed "the second takeoff" as pop singers and pirouetting dancers dazzled the crowd in a production worthy of Cecil B. DeMille.

But through the blur of activity, most eyes focused on a quiet and often self-effacing young man named Lee Kun-hee. On the death of his father, the legendary Lee Byung-chull, last November, the 46-year-old Lee assumed control. FORBES interviewed him in March. Was he in a triumphant mood? Not at all. He displayed the running-scared attitude that has carried his country and his company so far. "We are in a very important transition," worried Lee. "If we don't move into more capital- and technology-intensive industries, our very survival may be at stake."

Lee was talking about his company. But the words apply equally to his country's economy.

Edward Kim

Samsung Chairman K.H. Lee and his wife, Ra-he, at their Seoul home
Like his father, Lee was educated in Japan and looks to Japanese companies for models. "I have a dream," the chairman says, "to build Samsung into a world-class company, a genuine multinational."

Despite the tumultuous political scene, Korea's real GNP grew by over 12% last year. Inflation was 6%, per capita GNP exceeded $2,800 and looks like it may top $5,000 in 1991. Growth will probably be around 7% to 8% a year for the next few years, just enough to absorb the half-million young Koreans who enter the work force each year. Wealthier Japan will probably grow around 3% a year in the near future.

But the 42 million people of this Indiana-size country face serious problems, too. These problems explain why Samsung's Lee was in a running-scared rather than triumphant mood. Korea's economic miracle was built largely on the strong backs of poorly paid workers who often toiled 12 hours a day, six days a week. That is changing. Even though better-paying factory jobs run only between $2 and $3 an hour, workers are feeling their oats and wages are rising fast. Soon, cheap and energetic labor alone will no longer give Korea an advantage. The nation's sudden lurch toward democracy last year greatly strengthened Korea's unions and unleashed workers' demands for a bigger piece of the Korean economic miracle. Manufacturing wages, more than double their level in 1980, rose 20% last year and will climb another 13% to 15% this year. As against this, however, South Korean productivity in manufacturing is also rising fast, last year jumping nearly 20%.

South Korea will need to continue pressing productivity gains for another reason: It cannot count much longer on having a cheap currency. Under pressure from Treasury Secretary James Baker, Korea's central bankers have boosted the won's value against the dollar by 20% since September 1985. The currency will probably appreciate between 15% and 20% this year.

Korea, in short, is in a bind. If its businessmen and workers relax, they will be overtaken by other fast-industrializing countries—India, China, Brazil, Thailand and the like. But for the Koreans to push ahead, they must compete even more fiercely with better-capitalized American and Japanese businessmen. Difficult choices either way.

Nowhere is Korea's response to these challenges seen more clearly than at Samsung Group. This is Korea's biggest and most profitable *chaebol*, or family-run conglomerate. The Samsung Group is, among other things, Korea's leading producer of consumer electronics, semiconductors, refined sugar and paper. Samsung leads the newly industrializing country's push into high technology. Since 1977 Samsung's consolidated revenues have expanded from $1.3 billion to $24 billion last year, equivalent to 20% of the country's GNP. Revenues will probably reach $30 billion this year.

Beyond the figures, Samsung is widely recognized as the best managed and best organized of the major

Jeffrey MacMillan

A Hyundai billboard going up in Austin, Tex. and a prominent Lucky-Goldstar product promotion in Los Angeles

Korea's sudden lurch into democracy last year strengthened unions, and the currency is rising at double-digit rates. Korea's manufacturers must push for better brand recognition if they are to protect and improve their profitability.

chaebols. It is facing the new challenges with the same stubborn determination that enabled it to win over the problems of underdevelopment and poverty.

As Chairman Lee puts the problem, during the highly inflationary 1970s "we put more emphasis on growth and size than on quality."

The numbers illustrate his point. Last year Samsung Group reported net profits of $293 million on its $24 billion in sales. That profit figure is probably understated, both for tax reasons and because profit is something of a bad word in Korea. Still, it provides some indication of the need to move into higher-margin products.

Says young Chairman Lee: "Since rising export prices are unavoidable, we are focusing on producing high-quality, high-value-added goods. The new company should be more quality- and profit-oriented. Unless you make profits, you can't invest in R&D and education."

Consider the group's Samsung Electronics Co., by far the biggest manufacturer in the Group. Founded in 1969, the company passed archrival Goldstar in 1984 to become Korea's leading electronics maker, registering sales of $3.2 billion last year. The vertically integrated manufacturer is centered in Suwon, a suburb of Seoul, where dozens of factories on a 370-acre site are connected by underground conveyor belts—efficient, even by Japanese standards. Acres of containers are piled up, a reminder that Samsung Electronics exports over 70% of its production.

Samsung Electronics grew by being a big supplier of color TVs, microwaves and VCRs to companies like GE, RCA, Sears and J.C. Penney, which put their own names on the equipment. Last year Samsung held about 13% of the U.S. VCR market and nearly 20% of the microwave oven business.

But companies other than Samsung have been making much of the profits on these goods. Ask your average American or European consumer what a Sony, Toshiba, Panasonic or Mitsubishi is, and the chances are excellent that he or she will know. Ask the same consumer about Samsung, Goldstar, Daewoo or Hyundai, and the likely response is a blank stare.

The Japanese, of course, have plowed billions of dollars of their trade surpluses back into advertising their products in the U.S. and, more recently, Europe and other parts of the world. The Koreans? Last year Samsung Electronics spent $20 million on advertising in the U.S. market, a figure that should grow by 20% this year. When it comes to marketing, the Koreans are still miles behind the Japanese. But they are learning.

"We have to have brand name recognition," agrees Lee. "The Olympics will be important to raising name recognition." An official Olympic sponsor, Samsung Electronics is sponsoring soccer matches in West Germany, putting up neon signs in Times Square and increasing ad outlays in attempting to become tomorrow's Panasonic or Sony. Last year 40% of electronics exports were under the Samsung brand name. The target for 1991 is 55%, when sales are projected at $7 billion.

This marketing orientation is relatively new for the Koreans. Over the years, Samsung has entered numerous joint ventures with American companies, including Hewlett-Packard, GE, Corning Glass, Amoco and Bell Helicopter. But old B.C. Lee visited the

U.S. only twice on business, most recently in 1982, when he received an honorary degree at Boston University, visited the grave of General Douglas MacArthur in Norfolk, Va. (a statue of MacArthur stands outside Lee's private art museum) and paid a courtesy call on H-P founders William Hewlett and David Packard.

Under B.C.'s son, Samsung will pay more direct attention to the U.S. market. But its management orientation will be Japanese, not American. When Samsung managers look for models, they look not to the U.S. or Europe but to Japan. Samsung Electronics, for example, strives to emulate Toshiba and Matsushita. Samsung Co., the Group's trading arm, looks at Sumitomo Corp., and so on. Last October, when Samsung opened its $150 million Advanced Institute of Technology, a groupwide basic research center, the model was Toshiba. You can see copies of Japan's *Nihon Keizai Shimbun* piled up in the lobbies of Samsung offices every morning.

That Samsung looks to Japan for inspiration is no accident. Born into a wealthy farm family in 1910, the year Japan's colonization of Korea began, B.C. Lee studied at Tokyo's Waseda University, where he later sent son K.H. Lee. He founded Samsung as a general trading store in 1938, to export fruit and dried fish to Japanese-occupied Manchuria. The elder Lee kept a second family—his mistress and their two children—in Tokyo, where he spent a few months every year meeting with industrialists, bankers, bureaucrats and journalists. While his Korean rivals, like the impulsive and authoritarian Chung Ju-yung, Hyundai's founder and chairman, would make quick strategic decisions, Lee would hop over to Tokyo to sound out friends like the founders of Matsushita and Honda. Recalls Rhee Pil-Gon, president of Samsung Co., the group's general trading company: "When he returned from Japan, he would gather directors of the relevant companies and tell them about his ideas."

What B.C. Lee studied most during his frequent visits to his mistress across the Sea of Japan was the way Japanese firms trained and treated their workers—what has since become popularized in this country as "Japanese management techniques." Lee, who sat in on every final interview of a managerial job applicant, was proud to say he spent 80% of his time selecting and cultivating personnel. In 1957 Samsung became the first *chaebol* to set up an open examination and recruitment system. This was enlightened self-interest: Lee, an educated man, understood that a meritocracy attracts top university graduates.

From the beginning Samsung offered better wages, benefits and working conditions than its competitors. Lee hated unions, and Samsung remains the only major *chaebol* without a union. This paid off last summer: When strikes crippled many of Korea's largest enterprises, Samsung emerged from the labor unrest almost unscathed (the Group's only strike was at its shipbuilder, a company it acquired and the only Samsung firm losing money).

Loyal Samsung men are molded at Samsung Education & Training Center, a facility that is part boot camp, part business school and part indoctrination center. The model here is Matsushita. Every new employee must pass a 24-day course that stresses teamwork and the Samsung philosophy. The day begins at 5:50 a.m. with the company song and a jog, and lasts until 10 p.m. To ensure that workers don't develop excessively individualistic tendencies, Samsung employees are sent back for a few days every year for refresher courses. The center includes a language school offering English, Japanese and Chinese—in preparation for the day direct trade opens between Korea and China. Annual budget for the center: $22 million.

In this attention to the human dimension of production lies the key for all Korean manufacturers, as they continue the search for ways to wring more value from old products and add more value through the manufacture of new products. You cannot, after all, expect muscular but unskilled workers to operate numerically controlled production equipment, design microchips and advise on international marketing campaigns. Lee says Samsung will spend $120 million this year to automate existing factories and offices. "Our target," says Chung Dam, senior executive managing director of

Father knew best

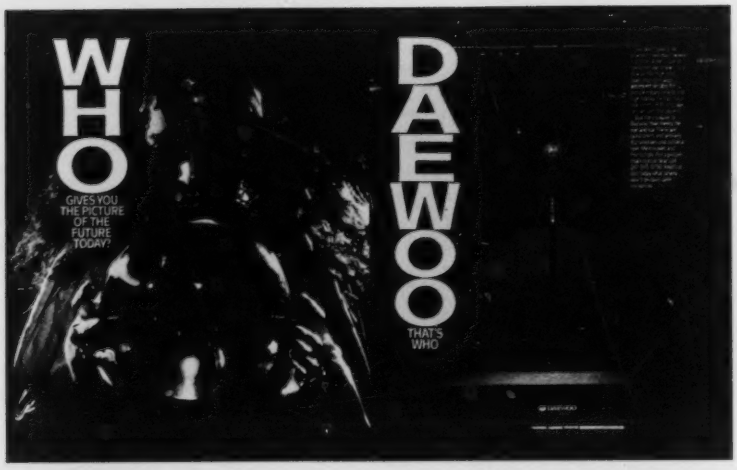
In the mid-1960s B.C. Lee's second son, Chang-hee, was implicated in a black market scandal surrounding imports for a fertilizer factory. Imprisoned for a while, Chang-hee left the Samsung Group and later established and built up Saehan Media, the world's largest videotape manufacturer. Lee's eldest son, considered incapable by the founder, exited the Group in 1971, the year Lee Kun-hee, the third son, then only 29, was designated the heir—highly unusual in this Confucian society.

K.H. Lee is still feeling his way. Seoul's rumor mill is filled with tales of dynastic struggle and family feuds. One story has it that the second son, Chang-hee, wants to return. Another theory holds that family shareholders will break companies off from the Group. And B.C. Lee's son by his Japanese mistress has recently moved from Japan to Seoul, where he now works for Cheil Sugar, one of Samsung Group's oldest companies.

Over a Japanese lunch, K.H. Lee is surprisingly candid about the gossip and the skepticism. "There are a lot of apprehensions about me in the family and in the society," he says. "I don't think I have 100% [family] support. The fact that I'm here means I have more than 50% support."

Samsung's late founder, B.C. Lee
A non-Confucian choice.

Asked what he considers his greatest achievement, Lee chuckles and says: "I'm very proud that I could survive the last four months."—A.T.



From Daewoo's series of eye-grabbing print ads

In the first stages of their development, most Korean companies licensed (or otherwise obtained) technology from U.S. companies. But the U.S. companies have grown wiser, and few, if any, Korean businesses are counting on the earlier strategy to fuel the next stage of Korea's development. Most of the large companies are budgeting record amounts not only for marketing but for research and development as well.

Samsung Electronics, "is to have production lines like Matsushita's."

If Samsung has followed the Japanese in human relations, its management style is very much its own. At the top is the executive staff, or secretariat, under the Group chairman's office. The key to the Group's organization, the secretariat comprises an elite corps of 250 managers seconded from Group companies. The staff exercises financial controls and coordinates Group matters such as personnel, advertising, information flow, investment and corporate strategy.

Samsung's centralized administration is widely admired and often copied by rival *chaebols*.

Here's how a family member of one competing group describes Samsung: "They give full authority and power to each company, but they also have very strong control and checks and balances from the chairman's office." An official at another big *chaebol* says simply: "Samsung is the best organized. Their executive staff is superb."

In industrial strategy, the Samsung system took a leaf from the Japanese, moving gradually up the ladder of industrial complexity. In the 1950s Lee prospered by dominating cash-generating consumer necessities like sugar, wool textiles and flour in an impoverished nation. In the 1960s he entered paper, electronics, fertilizers, retailing and life insurance. In the 1970s and early 1980s, Lee drove ahead first into petrochemicals, hotels and construction, and then into semiconductors, computers, aerospace, genetic engineering and robots. Note that Samsung is much less concentrated in heavy industry than Hyundai or Daewoo.

Semiconductors were B.C. Lee's final pet project. Again taking a leaf from the Japanese, Samsung Semiconductor & Telecommunications targeted memory chips, and since 1984 has poured $875 million into its Kihung plant, set among hills overlooking rice paddies 40 miles south of Seoul. At first, the company sustained heavy losses in 64K DRAMs, but recently the market has firmed. Samsung has been a prime beneficiary of the U.S.-Japan semiconductor accord, which created shortages and boosted prices of memory chips.

In 1986 Samsung made Korea the third country in the world to mass-produce 256K DRAMs. Some in the chip industry were astonished. "You just don't establish 256K capability in less than a year," says George Cobbe, president of the Samsung/Hewlett-Packard joint venture to produce computers and electronic instruments. "That tells you how hard they work and how committed they are." Samsung Semiconductor & Telecommunications is currently making 7 million to 8 million 256K DRAMs a month, putting it neck-and-neck with NEC and Texas Instruments for the world lead. The firm began shipping 1-megabit chips in late 1987.

In the first stage of its development, Samsung, like most Korean companies, licensed (or otherwise obtained) technology from American companies. Today, however, few, if any, Korean businesses are counting on that strategy to propel the next stage of Korea's development.

"It's almost impossible to license technology now," complains Kang Jin-ku, president of Samsung Semiconductor & Telecommunications. Explains Chairman Lee: "Nowadays, Japanese and American companies—particularly in the high-tech fields—avoid technology transfers to preserve their monopolistic hold."

So here again Samsung and other Korean companies are earmarking record amounts of their revenues for research and development. Lee says the Samsung companies will spend a total of $430 million—3% of manufacturing sales—on R&D this year, up 30% from last year's spending. To tap American brains, Samsung operates a semiconductor design and pilot production plant in Santa Clara, Calif. The Group also pooled resources with the Korean government, Goldstar and Hyundai to develop a 4-megabit chip.

Results are already showing up. Cheil Sugar & Co., the Group's oldest manufacturer and Korea's largest food processor, is investing aggressively in genetic engineering and has opened a

Signs of the times

Here are Korea's 11 mightiest conglomerates, their chief executives and their 1987 revenues in billions of dollars.

Samsung
Lee Kun-hee
electronic products, textiles, food processing, insurance
$24.0

Hyundai
Chung Se Yung
autos, industrial machinery
$22.7

Daewoo
Kim Woo-choong
computer products, autos, financial services
$16.0

Lucky-Goldstar
Koo Cha-kyung
electronic and chemical products
$16.0

Sunkyong
Chey Jong-hyon
video and audio tapes, textiles, petroleum
$7.3

Ssangyong
Kim Suk Won
cement, autos, petroleum
$4.8

Hyosung
Cho Suck-rai
heavy industry, textile and building materials
$3.9

Korea Explosives
Kim Seung Yun
explosives, agricultural products, industrial machinery
$3.9

Hanjin
Cho Choong Hoon
transportation, construction, financial services
$3.3

Kia
Min Kyung Jung
cars, trucks, machine tools
$2.4

Lotte
Shin Kyuk-ho
confectionery, beverages, retailing, hotels
$2.3

Sources: Prudential-Bache; company reports

research laboratory in New Jersey. In the past two years Cheil has marketed an alpha interferon ointment for herpes and a beta interferon vaccine to prevent hepatitis B. The target is to raise pharmaceutical sales tenfold within five years, to $150 million.

Another big Samsung company, Cheil Synthetic Textiles, is faced with rising competition from China, Thailand and Pakistan. So it is diversifying into nonfiber businesses. The company was the first in Korea to develop polyester base film, the raw material for videotape, on its own. Now the firm's laboratories are working on the technology to produce color film and paper. This would make Cheil only the fifth major color film producer in the world, along with Kodak, Agfa, Fuji and Konica.

Samsung Aerospace Industries is also moving rapidly up the value-added ladder. Originally set up to service jet engines for the Korean and U.S. air forces, the company then became a manufacturer of components for the U.S. aircraft industry. This year SSA will be awarded a contract by the Korean government to produce General Dynamics' F-16 or McDonnell Douglas' F-18 under license.

If Samsung, Hyundai, Daewoo, Lucky-Goldstar and Korea's other big *chaebol (see table)* are to compete effectively against their rivals in the U.S., Europe and Japan, the *chaebol* themselves will have to cede much of their economic power to the smaller companies Korea needs. Korea's labor force is growing by around 500,000 a year; absorbing those workers efficiently requires not a few giant companies but thousands of well-financed smaller companies like BIF Korea *(see following story)*. To free bank capital for smaller companies, the government has pressured the *chaebol* family owners to raise capital by selling equity in their conglomerates' pieces to the Korean public. Thirteen companies in the Samsung Group have gone public, raising $100 million of equity last year alone.

As Korea's stock market grows, the Ministry of Finance will make the market more accessible to foreign investors. (For now, the only way for Americans to invest in Korea is through a few listed convertible issues, and the NYSE-traded Korea Fund and the London-traded Korea-Europe Fund, both trading at steep premiums to net asset values.)

Faced with determined, well-thought-out competition like that coming from Samsung and other South Korean companies, the U.S. clearly faces problems in reestablishing its industrial exports. The Koreans worry that the U.S. may become frustrated with the problem of closing its trade deficit and resort to protectionism. Lee Kun-hee knows this, and worries about it.

It was very much on his mind when he received FORBES in his ornately decorated, French-style drawing room next to his office on the 28th floor of the Samsung headquarters building in downtown Seoul. He opened with an hour-long sermon that he says is aimed at the American public. Sipping iced coffee and puffing Eighty-eight brand Korean cigarettes, Lee attacked the politicians attempting to solve trade disputes.

"One of the big problems facing the modern world is that the rapid change taking place in business hasn't been accompanied by commensurate change in politics," he stated through an interpreter. "What I'm really worried about is that if these issues aren't resolved, they will escalate into political struggle between the politicians of our two countries."

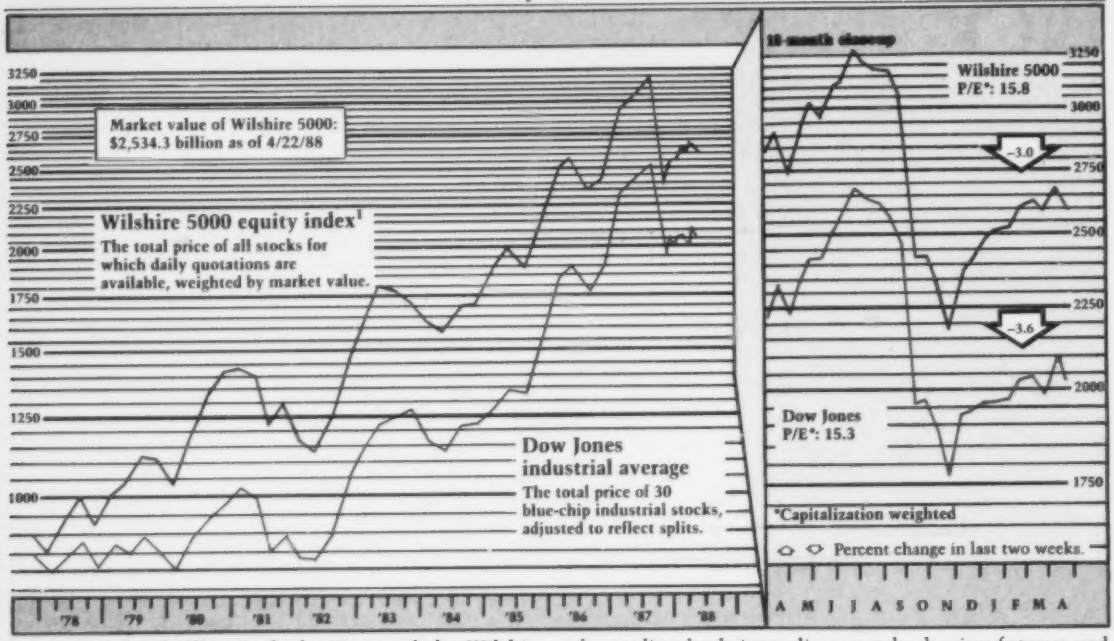
Can trade friction between the U.S. and Korea be kept from degenerating into protectionism and bitterness? Many signs are not encouraging. Despite oft-repeated promises by Korean bureaucrats and businessmen to learn from Japan's mistakes and better balance exports with imports, Korea's current account surplus hit a record $9.4 billion last year, double the level in 1986. The country's bilateral merchandise trade surplus against the U.S. has risen exponentially, from $300 million in 1982 to around $10 billion last year.

The Koreans are invading other major markets as well. The Japanese are importing Korean-made goods in record volumes. Last year, for the first time in recent memory, Korea's trade deficit with Japan actually shrank somewhat (to $5.2 billion). Korean exports to Europe, too, are surging, as is Korea's trade with China. From around $800 million now, Korean exports to China should grow to nearly $3 billion by 1991. As these and other markets for Korean manufactured goods develop, Korean exporters will no longer focus as heavily on the U.S. market.

No matter how one interprets the situation, it is glaringly and disturbingly clear that there is a new and clever player on the world industrial scene. "I have a dream," Lee says, "to build Samsung into a world-class company, a genuine multinational." Are our multinationals up to the challenge? That remains to be seen. ■

The Forbes/Wilshire 5000 Review

Edited by Steve Kichen


Market value of Wilshire 5000: $2,534.3 billion as of 4/22/88
Wilshire 5000 equity index[1]
The total price of all stocks for which daily quotations are available, weighted by market value.
Dow Jones industrial average
The total price of 30 blue-chip industrial stocks, adjusted to reflect splits.
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
'78 '79 '80 '81 '82 '83 '84 '85 '86 '87 '88
12-month closeup
Wilshire 5000 P/E*: 15.8
Dow Jones P/E*: 15.3
-3.0
-3.6
*Capitalization weighted
Percent change in last two weeks.
A M J J A S O N D J F M A

Programmed volatility. Both the Dow and the Wilshire index hit postcrash highs Apr. 12. But two days later the Dow fell 101 points. During the last week of trading two 30-plus-point intraday gains on the Dow were wiped out.

Are those program arbitragers to blame? Maybe, although a good case can be made that to blame them is to blame the messenger. When sell orders pile into the Chicago S&P 500 pit, futures prices get out of alignment with the stocks back in New York. The arbitragers bring the trading back into alignment by buying futures and selling stocks. The culprits, if that is the word, are the people selling the futures, not the arbitragers.

At the final bell Apr. 22 the Dow was off 3.6% for the two weeks; the NYSE, 3.3%; the Amex, 0.8%; and Nasdaq, 2%. The Dow is now right where it closed on the first trading day in January. But the Dow is a rather unbalanced market indicator *(see story, p. 136)*. The more representative Wilshire index is up 3.8% since then.

Closeup On the Equity Markets

Performance of six leading indexes

Percent change	Wilshire 5000	Forbes 500[2]	Dow Jones industrials	NYSE Composite	Amex Market Value Index	NASDAQ Composite
in last 4 weeks	0.3	0.5	1.8	0.3	1.2	0.4
in last 52 weeks	–8.0	–8.0	–9.9	–7.7	–7.4	–9.4

Stock performance based on six key investor yardsticks

Percent change	Company size		Volatility[3]		P/E multiple		Dividend yield		Growth profile[4]		Share price	
	large	small	high	low	over 25	under 5	over 7.5%	none	high	low	over $40	under $4
in last 4 weeks	–0.4	3.7	2.1	–0.1	0.9	1.6	0.3	4.0	2.1	1.7	–0.1	2.2
in last 52 weeks	–2.3	18.0	15.2	3.6	–4.4	–2.3	–1.4	21.5	15.1	4.4	0.5	15.2

[1]Wilshire index reflects price performance. It differs slightly from market value of outstanding stocks because of retirements of equity since index was created. [2]Based on sales. [3]A stock's sensitivity to overall market movement. High-volatility issues have wide price fluctuations, low-volatility issues are more stable. [4]A quantitative evaluation of a stock's growth image, determined by Wilshire Associates.

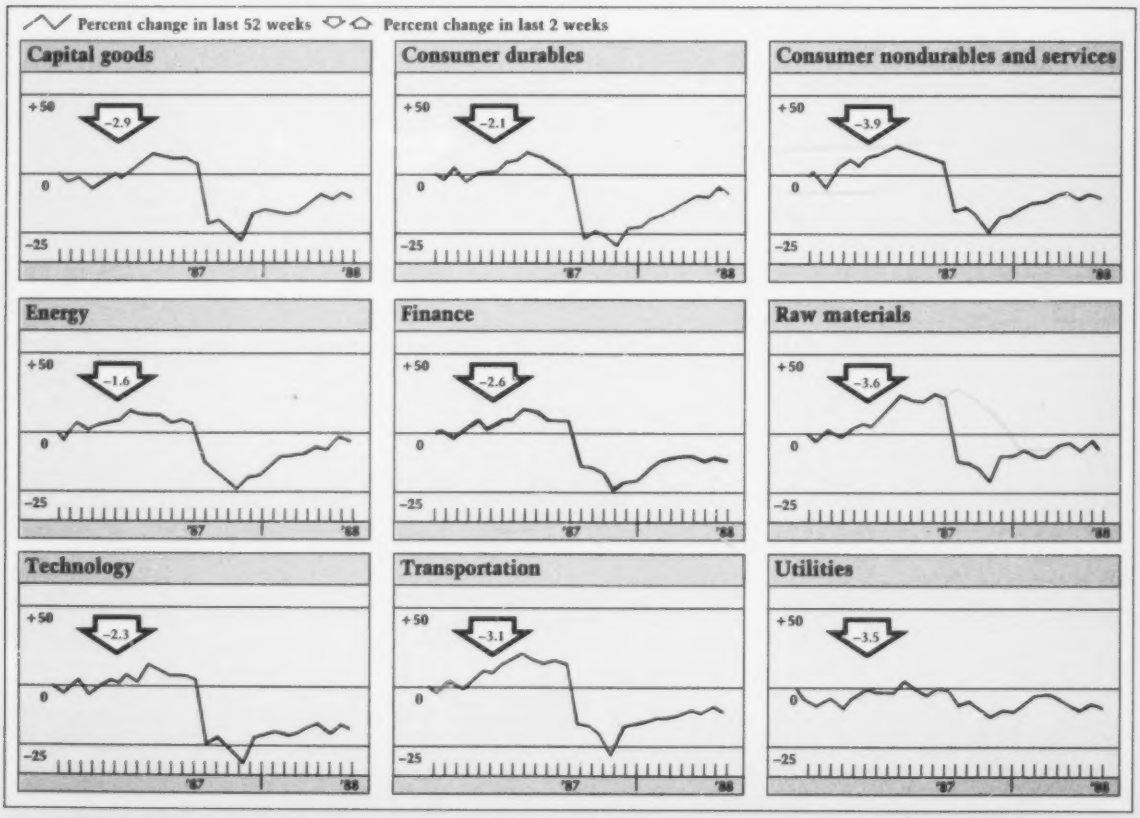
Note: All data for periods ending 4/22/88. Prepared by Wilshire Associates, Santa Monica, Calif.

Steven Ramos

Where the Action Is

Downdraft. The transportation group suffered a 3.1% loss over the two-week period. Texas Air, troubled by a special federal safety inspection, the prospect of financial strains and labor problems, dropped 12.5% in the last ten trading days. USAir Group fell 11.5%, while NWA was off 9%. But the market was friendlier to Trans World Airlines, which received a new buyout offer from its chairman, Carl Icahn, and rose 17.1%. AMR, parent of American Airlines, posted a 2.1% gain.

The prospect of higher oil prices helped energy stocks produce the largest four-week gain and the smallest two-week loss. Ocean Drilling & Exploration shows the best two-week result, a gain of 15.4%. Both Quaker State and Union Texas Petroleum Holdings rose nearly 10%.



What the Analysts Think

Stocks are not outrageous bargains, but the recent market decline coupled with a rise in many 1988 earnings estimates makes all nine Wilshire sectors look cheaper. Example: Consumer durables' market value fell 2.1% in two weeks, but the group's 1988 estimates rose 3.4% as its predicted 1988 P/E declined 7.9%, to 12.8.

Forecasting the Forbes Sales 500

Performance period	Average earnings per share	P/E
latest 12 months	$2.55	14.7
1988 estimates	3.53	10.6
1989 estimates	3.91	9.7

Rank based on change in estimate	Sector	Estimated 1988 EPS	Estimated 1988 P/E	% change in 1988 estimate in 2 weeks	% change in 1988 estimate in 4 weeks
1	Consumer durables	$4.15	12.8	3.42%	5.02%
2	Raw materials	2.98	11.1	1.39	2.06
3	Transportation	2.44	11.3	0.60	0.93
4	Capital goods	2.53	14.6	0.59	1.12
5	Energy	2.82	13.9	0.07	-0.69
6	Consumer nondurables	2.54	12.8	-0.09	-0.15
7	Utilities	2.43	9.4	-0.35	-0.35
8	Technology	2.80	11.6	-0.46	-0.53
9	Finance	3.46	7.6	-0.79	-1.47

Earnings projections are capitalization-weighted consensus estimates from over 2,000 security analysts. Data are compiled and updated continually by the Institutional Brokers Estimate System (IBES), a service of Lynch, Jones & Ryan, a New York-based brokerage firm.

Note: All data for periods ending 4/22/88. Prepared by Wilshire Associates, Santa Monica, Calif., IBES, a service of Lynch, Jones & Ryan, New York.

If next year's earnings for just 30 stocks come through as expected . . .

Could the Dow break 3000?

By Evan Sturza

IT'S AN ABACUS in this day of high-speed computers, a lopsided and not very representative index. But habits die hard, and so the Dow Jones industrial average remains the best-known market barometer in spite of its statistical shortcomings. It isn't even a good proxy for the market. Its 30 stocks have a combined market capitalization of only $443 billion, or 17% of the entire market as measured by the inclusive Wilshire index. If those 30 stocks do well, investors will feel bullish even if the market as a whole isn't doing terribly well.

Could the Dow top 3000 by the end of next year? It's not an outlandish thought. Analysts are forecasting $208 in 1989 earnings for the index, so a P/E of 15 (which is where the market is now) would put the Dow over 3100. A P/E of 12 and a somewhat disappointing earnings total of only $190 would still leave the Dow at 2280 a year and a half from now. On a worst-case basis, with disappointing earnings and a P/E of only 9, the risk would be a modest 15% or so down.

The fact is, the bull market of the mid-1980s wasn't as much of a bull market as it might have appeared. In real (inflation-adjusted) terms, the Dow would be at 2770 already if it were to equal its high at the end of 1972 *(see chart below)*.

Unlike more modern market indexes, the Dow is price-weighted. A $50 stock moves it twice as fast as a $25 stock. A 10% gain in Woolworth (recent close, 54⅛), for example, would push the average up 7.2 points, while a 10% gain in AT&T (26½) would push it up only half as far. But in market capitalization, AT&T is eight times as weighty as Woolworth.

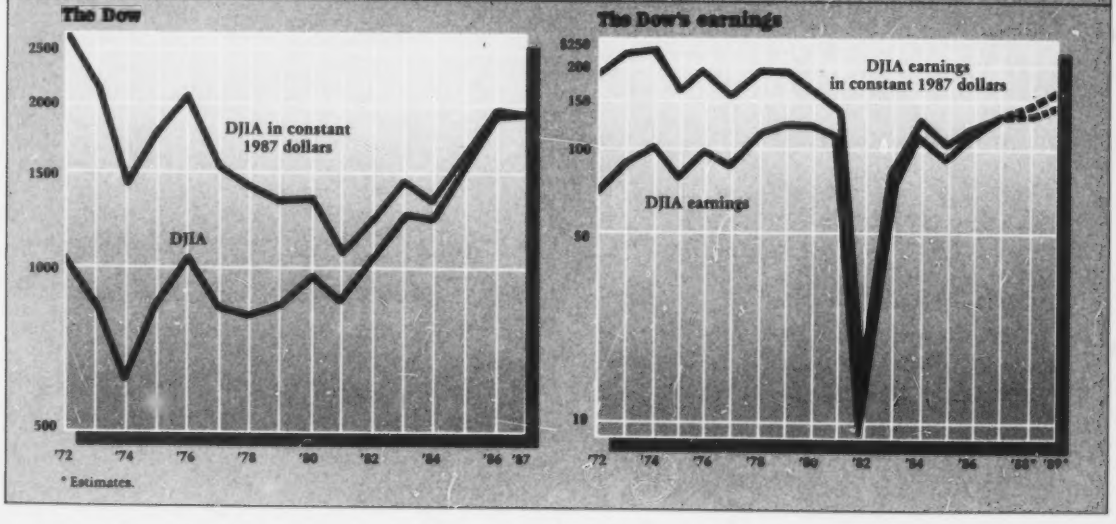
The Wilshire index, covering 5,700 issues, is capitalization-weighted. In it, AT&T counts eight times as heavily as Woolworth. So, too, in Standard & Poor's index of 500 stocks.

In short, people who are asking where the market will go and define the answer in terms of the Dow should be paying unusual attention to Woolworth's earnings, even though this retailer is no longer a big force in the economy. Analysts, as it happens, are expecting a 14% gain in Woolworth's earnings this year and another 13% in 1989.

What's the outlook for the whole

The crash of the Dow

To most people, the crash was on Oct. 19. But these charts take a long view, using year-end closes that make 1987 into a flat year. Figure in inflation, however, and a different crash surfaces—a ten-year crash from 1972 to 1982. But then, in real terms, the Dow's earnings are only now catching up to where they were in 1972.



basket of 30 stocks? Pretty good, if consensus forecasts from the Institutional Brokers Estimate System are on target *(see table below)*. They predict that earnings on the Dow will jump nearly 43%, to $189, this year. But there's less to that improvement than meets the eye. In 1987 the Dow was hurt by Texaco's $18.15 loss. An average 18.7% increase is expected for the remaining 29 stocks.

Dow watchers should also be very unhappy that Merck is splitting its stock 3-for-1. Merck has excellent earnings prospects, but the split will reduce the favorable impact of Merck's earnings gains on the composite earnings for the Dow index. Why? Before the split, Merck was trading at 157 and carried three times the weight of Woolworth. After the split, it will have Woolworth's weight.

Although it will reduce Merck's future influence on the average, the split won't cause the Dow to take a hit on the day it takes place. That's because the price average is adjusted after every split. When Charles Dow started his industrial average of 11 stocks in 1884 he simply added up the prices of all 11 issues and divided it by 11. That divisor has changed over the years every time the index gained or lost a stock or a stock had a split. In 1928, when the list was expanded to its current size of 30, the divisor became 16.02; it is now 0.754. Thus, the 1988 Dow close for Apr. 20 shown in the table is the sum of the prices shown divided by 0.754.

What's the bottom line? That the Dow is more of a symbol than a yardstick. And that as a symbol it is not as overpriced as it may look. ■

Dow earnings look good

Analysts are predicting an 18.7% increase in 1988 earnings for the Dow industrials (not counting Texaco). For 1989, earnings are supposed to hit $208, which would keep the Dow comfortably above 2000, if only the price/earnings multiple comes in at 10 or better. The Dow is currently trading at 15 times trailing earnings.

	Price			Earnings			% change EPS		P/E		
		5 year		1987	1988	1989	1988/87	1989/88	1987	1989	
Company	Recent	high	low	actual	est	est	est	est	actual	est	Yield
Allied-Signal	30¾	55	26	$3.55	$2.99	$3.32	–16%	11%	9	9	5.8%
Alcoa	45⅛	65	30	2.52	5.36	5.75	113	7	18	8	2.6
American Express	24	41	13	1.20	2.72	3.20	127	18	20	8	3.2
AT&T	26½	36	15*	1.88	2.14	2.39	14	12	14	11	4.5
Bethlehem Steel	19⅞	30	5	1.48	3.30	3.92	123	19	13	5	0.0
Boeing	45	65	24	3.10	3.59	5.44	16	52	15	8	3.1
Chevron	45⅞	65	29	2.94	3.35	3.76	14	12	16	12	5.2
Coca-Cola	37	53	15	2.43	2.76	3.19	14	16	15	12	3.2
Du Pont	82⅞	131	45	7.39	8.13	8.59	10	6	11	10	4.1
Eastman Kodak	40	71	27	3.52	4.05	4.51	15	11	11	9	4.5
Exxon	41⅞	51	16	3.43	3.61	3.83	5	6	12	11	4.8
General Electric	39¼	66	23	2.33	3.67	4.08	58	11	17	10	3.6
General Motors	72¼	94	50	10.06	9.32	7.49	–7	–20	7	10	6.9
Goodyear	62½	77	23	12.73	8.26	8.38	–35	1	5	7	2.6
IBM	112⅞	176	99	8.72	9.83	11.06	13	13	13	10	3.9
Intl Paper	42⅜	58	22	3.68	4.99	5.07	36	2	12	8	2.8
McDonald's	41½	61	17	2.89	3.42	3.91	18	14	14	11	1.2
Merck	157½	223	39	6.68	8.54	10.57	28	24	24	15	2.4
Minn Mining & Mfg	58⅞	84	35	4.02	4.66	5.09	16	9	15	12	3.6
Navistar Intl	6¼	15	4	0.50	0.77	0.84	54	9	13	7	0.0
Philip Morris	86¼	125	28	7.75	9.85	11.96	27	21	11	7	4.2
Primerica	26	54	19	3.35	3.57	3.65	7	2	8	7	6.2
Procter & Gamble	76¼	104	46	1.87	5.88	6.67	214	13	41	11	3.7
Sears, Roebuck	34¾	60	26	3.95	4.62	4.92	17	6	9	7	5.8
Texaco	46⅝	51	24	–18.15	2.55	3.08	NM	21	NM	15	6.4
USX	31⅜	39	15	0.49	2.60	2.90	431	12	64	11	3.8
Union Carbide	22⅞	33	11	1.76	2.74	3.04	56	11	13	8	6.6
United Technology	38⅛	61	29	4.52	4.97	5.42	10	9	8	7	3.7
Westinghouse	50	75	21	5.12	5.67	6.02	11	6	10	8	3.4
F.W. Woolworth	54⅛	60	15	3.81	4.33	4.88	14	13	14	11	2.4
Average/total	1988†	2890	1049†	$131.99	$188.65	$208.13	43%	10%	15	11	3.8%

*Range less than 5 years. †Dow Jones industrial average.

Source: IBES, a Service of Lynch, Jones & Ryan via MicroScan from Lotus CD Investment.